

JUN 20 2007

Atty Docket No. 16869P-023900US

PTO FAX NO.: 571-273-8300

ATTENTION: Examiner Daniel J. Ryman

Group Art Unit 2616

OFFICIAL COMMUNICATION
FOR THE PERSONAL ATTENTION OF
EXAMINER Daniel J. Ryman

CERTIFICATION OF FACSIMILE TRANSMISSION

I hereby certify that the following documents in re Application of Daisuke Matsubara et al., Application No. 09/816,067, filed March 22, 2001 for METHOD AND APPARATUS FOR PROVIDING A QUALITY OF SERVICE PATH THROUGH NETWORKS are being facsimile transmitted to the Patent and Trademark Office on the date shown below.

Documents Attached

1. Transmittal form
2. Renewed Petition Under 37 CFR Section 1.137(a)
3. Appendix A through E

Number of pages being transmitted, including this page: 25

Dated: June 20, 2007

Cynthia McKinley

**PLEASE CONFIRM RECEIPT OF THIS PAPER BY
RETURN FACSIMILE AT (415) 576-0300**

TOWNSEND and TOWNSEND and CREW LLP
Two Embarcadero Center, Eighth Floor
San Francisco, CA 94111-3834
Telephone: 650-326-2400
Fax: 650-326-2422

61082115 v1

**RECEIVED
CENTRAL FAX CENTER**

JUN. 20. 2007 3:08PM TTC-PA 650-326-2422

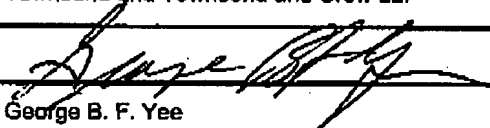
NO. 080 P. 2/25

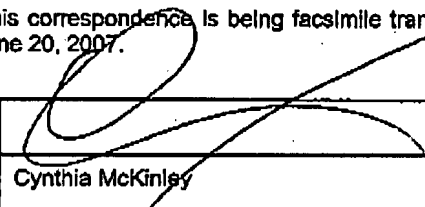
JUN 20 2007

PTO/SB/21 (07-06)

TRANSMITTAL FORM	Application Number	09/816,067
	Filing Date	March 22, 2001
	First Named Inventor	Daisuke Matsubara
	Art Unit	2616
	Examiner Name	Daniel J. Ryman
(to be used for all correspondence after initial filing)		
Total Number of Pages in This Submission	24	Attorney Docket Number 16869P-023900US

ENCLOSURES (Check all that apply)		
<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Reply to Missing Parts/ Incomplete Application <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Landscape Table on CD	<input type="checkbox"/> After Allowance Communication to TC <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): Renewed Petition Under 37 CFR Section 1.137(a) Appendix A through E
Remarks: The Commissioner is authorized to charge any additional fees to Deposit Account 20-1430.		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT			
Firm Name	Townsend and Townsend and Crew LLP		
Signature			
Printed name	George B. F. Yee		
Date	June 20, 2007	Reg. No.	37,478

CERTIFICATE OF TRANSMISSION/MAILING			
I hereby certify that this correspondence is being facsimile transmitted to the Patent and Trademark Office, Fax No. 1-671-273-8300 on June 20, 2007.			
Signature			
Typed or printed name	Cynthia McKinley	Date	June 20, 2007

61082126 v1

JUN 20 2007

Attorney Docket No.: 16869P-023900US
Client Ref. No.: 310100654US01

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Daisuke Matsubara et al.

Application No.: 09/816,067

Filed: March 22, 2001

For: METHOD AND APPARATUS FOR
PROVIDING A QUALITY OF SERVICE
PATH THROUGH NETWORKS

Customer No.: 20350

Confirmation No. 2693

Examiner: Daniel J. Ryman

Technology Center/Art Unit: 2616

RENEWED PETITION UNDER

37 C.F.R. SECTION 1.137(a)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

On February 14, 2007, a petition to revive an unavoidably abandoned application was filed along with a response to an Office action ("the response"), the receipt of which never occurred thus resulting in the abandonment.

On April 2, 2007, a first decision dismissing the petition was mailed. The decision was based on the ground that the petition was not accompanied by relevant docket records in support of the petition. In fact, relevant docket records had in fact been submitted, but were associated with the remarks section of the accompanying amendment and thus seemed to have been overlooked.

On April 10, 2007, a renewed petition was filed with the intention of resubmitting all of the original petition documents in the February 14 filing.

On June 11, 2007, a second decision dismissing the petition was mailed. The decision was based on the ground that the petition was not accompanied by an amendment in support of the petition. A review of the file wrapper, accessed via private PAIRS, shows that the amendment, originally filed in the February 14 filing, was inadvertently omitted in the April 10 response.

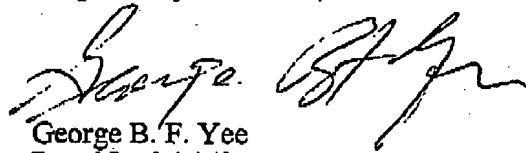
Renewed Petition
page 2

This second renewed petition is submitted herewith for further consideration,
along with the February 14 documents apportioned into the following five appendices:

- Appendix A - copy of stamped postcard of the February 14 filing (1 page)
- Appendix B - transmittal form (1 page)
- Appendix C - petition (3 pages)
- Appendix D - docket records (2 -ages)
- Appendix E - amendment (9 pages)

The undersigned is grateful for the opportunity to correct the omission made in
the April 10 filing of the renewed petition.

Respectfully submitted,



George B. F. Yee
Reg. No. 37,478

TOWNSEND and TOWNSEND and CREW LLP
Two Embarcadero Center, Eighth Floor
San Francisco, California 94111-3834
Tel: 650-326-2400 / Fax: 415-576-0300
Attachments
GBFY
61081336 v1

APPENDIX A

FILING ACKNOWLEDGMENT

Mailing Date:

2/12/07

File No.:

16869P-023900US

Attorney:

GBFY:cnm

Inventor(s):

Daisuke Matsubara et al.

Title:

Method and Apparatus for Providing a Quality of Service Path Through Networks

Re: Application No. 09/816,067; Filing Date: March 22, 2001

Enclosed: Transmittal Form, Petition for Revival of an Application for Patent Abandoned Unavoidably Under 37 CFR 1.137(a) (in dup.), Exhibit A, Amendment, and postcard.

Please stamp the date of receipt of the enclosed documents and return this card to address 60939727 v1



COPY

APPENDIX B

**RECEIVED
CENTRAL FAX CENTER**

JUN.20.2007 3:09PM TTC-PA 650-326-2422

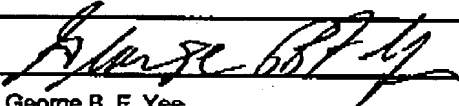
NO.080 P.8/25

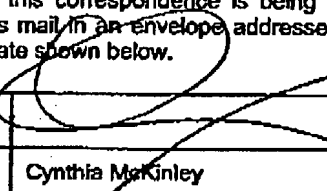
JUN 20 2007

PTO/SB/21 (07-06)

TRANSMITTAL FORM <small>(to be used for all correspondence after initial filing)</small>	Application Number	09/816,067
	Filing Date	March 22, 2001
	First Named Inventor	Matsubara, Daisuke
	Art Unit	2616
	Examiner Name	Daniel J. Ryman
	Attorney Docket Number	16889P-023900US
Total Number of Pages in This Submission		9

ENCLOSURES (Check all that apply)		
<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input checked="" type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Reply to Missing Parts/ Incomplete Application <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input checked="" type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation <input type="checkbox"/> Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Landscape Table on CD	<input type="checkbox"/> After Allowance Communication to TC <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): Exhibit A Return Postcard
Remarks: The Commissioner is authorized to charge any additional fees to Deposit Account 20-1430.		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT			
Firm Name	Townsend and Townsend and Crew LLP		
Signature			
Printed name	George B. F. Yee		
Date	February 12, 2007	Reg. No.	37,478

CERTIFICATE OF TRANSMISSION/MAILING			
I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.			
Signature			
Typed or printed name	Cynthia McKinley	Date	February 12, 2007

60981336 v1

COPY

APPENDIX C

JUN 20 2007

PTO/SB/61 (09-06)

PETITION FOR REVIVAL OF AN APPLICATION FOR PATENT ABANDONED UNAVOIDABLY UNDER 37 CFR 1.137(a)		Docket Number (Optional) 16869P-023900US
First named inventor: Daisuke Matsubara		Art Unit: 2616
Application Number: 09/816,067		Examiner: Daniel J. Ryman
Filed: March 22, 2001		
Title: Method and Apparatus for Providing a Quality of Service Path Through Networks		
Attention: Office of Petitions Mail Stop Petition Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450		
NOTE: If information or assistance is needed in completing this form, please contact Petitions Information at (571) 272-3282.		
The above-identified application became abandoned for failure to file a timely and proper reply to a notice or action by the United States Patent and Trademark Office. The date of abandonment is the day after the expiration date of the period set for reply in the Office notice or action plus any extensions of time actually obtained.		
APPLICANT HEREBY PETITIONS FOR REVIVAL OF THIS APPLICATION.		
NOTE: A grantable petition requires the following items:		
(1) Petition fee.		
(2) Reply and/or issue fee.		
(3) Terminal disclaimer with disclaimer fee — required for all utility and plant applications filed before June 8, 1995, and for all design applications; and		
(4) Adequate showing of the cause of unavoidable delay.		
1. Petition fee		
<input type="checkbox"/> Small entity — fee \$ _____ (37 CFR 1.17(l)). Applicant claims small entity status. See 37 CFR 1.27.		
<input checked="" type="checkbox"/> Other than small entity — fee \$ <u>500</u> (37 CFR 1.17(l)).		
2. Reply and/or fee		
A The reply and/or fee to the above-noted Office action in the form of <u>Amendment</u> (Identify the type of reply):		
<input type="checkbox"/> has been filed previously on _____		
<input checked="" type="checkbox"/> is enclosed herewith.		
B The issue fee of \$ _____		
<input type="checkbox"/> has been paid previously on _____		
<input type="checkbox"/> is enclosed herewith.		

[Page 1 of 3]

COPY

JUN 20 2007

PTO/SB/61 (09-06)

PETITION FOR REVIVAL OF AN APPLICATION FOR PATENT ABANDONED
UNAVOIDABLY UNDER 37 CFR 1.137(a)

3. Terminal disclaimer with disclaimer fee

- ☒ Since this utility/plant application was filed on or after June 8, 1995, no terminal disclaimer is required.
- ☐ A terminal disclaimer (and disclaimer fee (37 CFR 1.20(d)) of \$ _____ for a small entity or \$ _____ for other than a small entity) disclaiming the required period of time is enclosed herewith (see PTO/SB/63).

4. ☒ For fees authorized to be paid hereinabove, the Commissioner is hereby authorized to charge the fees, any deficiency of fees, and credit of any overpayments, to Deposit Account No. 20-1430.

5. An adequate showing of the cause of the delay, and that the entire delay in filing the required reply from the due date for the reply until the filing of a grantable petition under 37 CFR 1.137(a) was unavoidable, is enclosed.

WARNING:

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.



Signature

George B. F. Yee

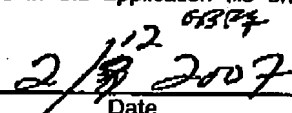
Typed or printed name

Two Embarcadero Center, Eighth Floor

Address

San Francisco, California 94111-3834

Address



Date

37,478

Registration Number, if applicable

650-326-2400

Telephone Number

- Enclosure ☐ Fee Payment
- ☒ Reply
- ☐ Terminal Disclaimer Form
- ☐ Additional sheets containing statements establishing unavoidable delay
- ☐

CERTIFICATE OF MAILING OR TRANSMISSION (37 CFR 1.8(a))

I hereby certify that this correspondence is being:

☒ deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

☐ transmitted by facsimile on the date shown below to the United States Patent and Trademark Office at (571) 273-8300.

2/12/07

Date

Signature

Cynthia McKinley

Typed or printed name of person signing certificate

[Page 2 of 3]

60939724 v1

COPY

JUN 20 2007

PTO/SB/61 (09-06)

**PETITION FOR REVIVAL OF AN APPLICATION FOR PATENT ABANDONED
UNAVOIDABLY UNDER 37 CFR 1.137(a)**

NOTE: The following showing of the cause of unavoidable delay must be signed by all applicants or by any other party who is presenting statements concerning the cause of delay.


Signature

2/12/07

Date

George B. F. Yee

Typed or printed name

37,478

Registration Number, if applicable

(In the space provided below, please explain in detail the reasons for the delay in filing a proper reply.)

The Office action mailed May 16, 2006 was never received by Applicant or by Applicant's legal representatives. The mailing address properly identifies Applicant's legal representatives. However, a review of the file jacket and of the docket records (Exhibit A) maintained by Applicant's legal representatives indicates that the Office action was never received. Neither Applicant nor Applicant's legal representatives knew of the mailing of the Office action. As of the date of this statement, the Office action has not been received by Applicant or Applicant's legal representatives; the Office action is presumed to have been lost in the U.S. Post Office, or never actually left the U.S. PTO.

Applicant and Applicant's legal representative first became aware of the Office action on November 15, 2006, one day prior to the expiration of the maximum statutory period for responding to the Office action. Due to lack of time, a proper response could not be prepared in time for filing. Consequently, the application became unavoidably abandoned.

Since the application became abandoned, Applicant took action to assess whether or not to proceed with reviving the application. Having decided to proceed to revive the application, Applicant took action to study and prepare instructions for counsel to draft a proper response to the Office action. Instructions from Applicant were received on January 31, 2007 by counsel of record.

(Please attach additional sheets if additional space is needed.)

[Page 3 of 3]

60939724 v1

COPY

APPENDIX D

Prosecution Docket Report

For: Hitachi, Ltd.

Country: For US Matters

Start Date: 8/1/2006

End Date: 11/30/2006

Date Type: Both Due and Reminder Dates

Date Client/Matter (Pat/TM) (Client Reference No.)	Action/Events Notes	Title/Mark Client	App - Reg No Filing - Issue Date	Country Status	Bill - Resp Party Other Attys
Due Date: 08/01/2006 16869B-126510US (Pat) {HAL-ID 346}	IDS (Inf. Disc. Stmt.) deadline	Method for Managing Volume Groups Considering Storage Tiers Hitachi, Ltd.	11/415592 5/1/2006	US Granted	RCC - RIH GBY
Due Date: 08/03/2006 16869B-0115500US (Pat) {HAL-ID 328}	Target Filing Date - 12 mo. Reminder original target filing date 8-3-05	Data Discovery and Location Management Hitachi, Ltd.		US Not yet filed	GBY - RCC
Due Date: 08/12/2006 16869B-0639000US (Pat) {HAL-ID 238}	Response Interview Summary 07/12/06 (received 07/17/06)	Method and Apparatus for Data Integration Hitachi, Ltd.	10/660278 9/10/2003	US Granted	RCC - GBY GBY
Due Date: 09/04/2006 16869B-0983600US (Pat) {HAL-ID 289}	Response Interview Summary 08/04/06 (received 08/11/06)	Distributed Data Management System Hitachi, Ltd.	10/806998 3/22/2004	US Pending - Published	RCC - SAR SAR
Due Date: 09/19/2006 16869B-0896000US (Pat) {HAL-ID 284}	Response Petition DISMISSED 07/19/06 (received 07/26/06)	Method and Apparatus for Limiting Access to a Storage System Hitachi, Ltd.	10/759581 1/16/2004	US Pending - Published	RCC - GBY GBY
Due Date: 09/28/2006 16869B-1497000US (Pat) {HAL-ID 366}	Check PAIR for 1st OA	Management of Encrypted Storage Networks Hitachi, Ltd.	11/239549 9/28/2005	US Pending	RCC - RIH
Due Date: 09/29/2006 16869B-098410US (Pat) {HAL300CON1}	IDS (Inf. Disc. Stmt.) deadline	Method and Apparatus for Multistage Volume Locking Hitachi, Ltd.	11/479454 6/29/2006	US Pending - Published	RCC - RIH
Due Date: 11/02/2006 16869B-098210US (Pat) {HAL-ID 288}	IDS (Inf. Disc. Stmt.) deadline	Long Term Data Protection System and Method Hitachi, Ltd.	11/498449 8/2/2006	US Granted	RCC - CRF GBY
Due Date: 11/24/2006 16869B-080610US (Pat) {HAL268con1}	IDS (Inf. Disc. Stmt.) deadline	Point In Time Remote Copy for Multiple Sites Hitachi, Ltd.	11/510382 8/24/2006	US Pending - Published	RCC - RIH GBY

COPY

Date Client/Matter (Pat/TM) (Client Reference No)	Action/Events Notes	Title/Mark Client	App - Reg No Filing - Issue Date	Country Status	Bill - Resp Party Other Attys
Due Date: 11/29/2006 16869B-113110US (Pat) {HAL 322con1}	IDS (Inf/Discl Stmt.) deadline	Method for Data Protection in Disk Array Systems Hitachi, Ltd.	11/512664 8/29/2006	US Pending -- Published	RCC - RIH GBY

COPY

APPENDIX E

RECEIVED
CENTRAL FAX CENTER

NO.080

P.17/25

JUN 20 2007

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to:

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

On

TOWNSEND and TOWNSEND and CREW LLP

By:

AMENDMENT UNDER 37 CFR 1.116
EXPEDITED PROCEDURE -
EXAMINING GROUP 2693

PATENT

Attorney Docket No.: 16869P-023900US

Client Ref. No.: HAL-ID 174

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Daisuke Matsubara et al.

Application No.: 09/816,067

Filed: March 22, 2001

For: METHOD AND APPARATUS FOR
PROVIDING A QUALITY OF SERVICE
PATH THROUGH NETWORKS

Customer No.: 20350

Confirmation No. 2693

Examiner: Daniel J. Ryman

Technology Center/Art Unit: 2616

AMENDMENT UNDER 37 CFR 1.116
EXPEDITED PROCEDURE EXAMINING
GROUP 2693

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the Final Office Action mailed May 16, 2006 on the above-referenced application, please enter the following amendments and remarks:

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 7 of this paper.

COPY

Appl. No. 09/816,067
Amdt. sent February 12, 2007
Amendment under 37 CFR 1.116 Expedited Procedure
Examining Group 2693

PATENT

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1 1. (Currently amended) A data network for communicating data between a
2 sender unit and a receiver unit, comprising:
3 a core network including relay elements intercoupled by data links;
4 a gateway element coupled to the core network and to the sender unit, the receiver
5 unit being coupled to the core network, the gateway element having at least one information
6 table identifying at least one route from the gateway element through the core network to the
7 receiver unit, including data links which constitute the at least one route, allocations of
8 predetermined communication resources of the data links, and status information indicative of an
9 amount of currently used communication resources of the data links and an amount of currently
10 available communication resources of the data links of the one or more data links.
- 1 2. (Currently amended) A method of management of data communication
2 through a core network between a sender unit and a receiver unit that includes the steps of:
3 defining at least one communicative route through the core network between the
4 sender unit and the receiver unit that includes a plurality of network links that each have a
5 predetermined communication resource;
6 coupling the sender unit and the receiver unit to the core network with [[a]]
7 sending and receiving gateway elements, respectively;
8 allocating to the sending gateway element a first portion of the predetermined
9 communication resources of at least certain of the network links forming a communicative route
10 between the sending and receiving gateway elements, and maintaining at the sending gateway
11 element information indicative of the allocated predetermined communication resources and

COPY

Appl. No. 09/816,067
Amdt. sent February 12, 2007
Amendment under 37 CFR 1.116 Expedited Procedure
Examining Group 2693

PATENT

12 status information indicative of a currently used amount of the allocated communication
13 resources and a currently available amount of the allocated communication resources;
14 receiving at the sending gateway element a request from the sender unit for a data
15 transfer across the communicative route, the request including a specification of requested
16 communication resource[[:]], the sending gateway element checking the status information to
17 grant the request if the currently available amount of the allocated communication resources
18 ~~communicating capacity~~ of the communicative route is equal or greater than the requested
19 communication resource available.

1 3. (Original) The method of claim 2, including allocating a second portion
2 of the predetermined communication resource of the certain of the network links.

1 4. (Original) The method of claim 3, wherein the step of checking the
2 information includes reconfiguring the predetermined communicative resource of the certain of
3 the network links re-allocate at least a portion of the communicative resource allocated to the
4 receiving gateway element to the sending gateway element.

1 5. (Previously presented) The method of claim 2, wherein the predetermined
2 communication resource is a communication bandwidth.

1 6. (Previously presented) The method of claim 2, wherein the predetermined
2 communication resource includes a communication bandwidth.

1 7. (Currently amended) A method of admission control of data to a core
2 network having a number of relay nodes interconnected by data links, the method including the
3 steps of:

4 associating a predetermined data communication capacity with each of the data
5 communicating links;

6 communicatively coupling sending and receiving gateway elements to the core
7 network;

COPY

Appl. No. 09/816,067
Amdt. sent February 12, 2007
Amendment under 37 CFR 1.116 Expedited Procedure
Examining Group 2693

PATENT

8 connecting first and second data transfer elements to the sending and receiving
9 gateway elements, respecting, for data communication by a route through the core network
10 containing certain of the data links;

11 assigning first and second portions of the data communication capacity of at least
12 the certain of the data links to the sending and receiving gateway elements, respectively;

13 providing the sending gateway element with information indicative of the first
14 portion[[:]], the sending gateway element responding to a request for data communication of a
15 requested capacity from the first data transfer element by checking the information, determining
16 status information indicative of currently used data communication capacity of the certain links
17 and currently available data communication capacity of the certain links, and granting the request
18 if the currently available data communication capacity of the certain data links is at least equal to
19 or greater than the requested capacity.

1 8. (Original) The method of claim 7, wherein the sending step includes re-
2 assigning at least a part of the second portion to the first portion of the data communication
3 capacity of at least one of the certain data links.

1 9. (Original) The method of claim 8, including the step of providing the
2 receiving gateway element with information indicative of the second portion.

1 10. (Original) The method of claim 9, wherein the step of re-assigning
2 includes decreasing the information indicative of the second portion by the part of the second
3 portion re-assigned to the first portion.

1 11. (Original) The method of claim 10, wherein the step of re-assigning
2 includes increasing the information indicative of the first portion by the part of the second
3 portion re-assigned to the first portion.

COPY

Appl. No. 09/816,067
Amdt. sent February 12, 2007
Amendment under 37 CFR 1.116 Expedited Procedure
Examining Group 2693

PATENT

1 12. (Currently amended) A system for providing a QoS communication route
2 from a first communicating entity to a second communicating entity through a core network that
3 includes a plurality of network links, the system including;

4 a data store comprising an information table of information indicative of a
5 predetermined communication resource associated with each network link;

6 a sending gateway element and a receiving gateway element respectively coupling
7 the first and second communicating entities to the core network;

8 assigning wherein the sending gateway element is configured to be assigned a
9 first portion of the predetermined communication resources of at least certain of the network
10 links forming a communicative route between the sending and receiving gateway elements, and
11 to maintaining at the sending gateway element information indicative of the allocated
12 predetermined communication resources and status information indicative of a currently used
13 amount of the allocated communication resources and a currently available amount of the
14 allocated communication resources; and

15 receiving at wherein the sending gateway element is configured to receive a
16 request from the sender unit for a data transfer across the communicative route, the request
17 including a specification of requested communication resource;

18 the sending gateway element checking the status information to grant the request
19 if the currently available amount of the allocated communication resources communicating
20 capacity of the communicative route is equal or greater than the requested communication
21 resource available.

1 13. (New) The data network of claim 1, further comprising:
2 a trunk management system, wherein the gateway element periodically sends the
3 status information to the trunk management system.

1 14. (New) The data network of claim 13, wherein the trunk management
2 system allocates bandwidth of the predetermined communication resources of the data links.

COPY

Appl. No. 09/816,067
Amdt. sent February 12, 2007
Amendment under 37 CFR 1.116 Expedited Procedure
Examining Group 2693

PATENT

1 15. (New) The method of claim 7, wherein the sending gateway element
2 periodically sends the status information to the trunk management system.

1 16. (New) The method of claim 15, wherein the trunk management system
2 allocates bandwidth of the certain links of the route based on the status information indicative of
3 currently used data communication capacity of the certain links and currently available data
4 communication capacity of the certain links.

COPY

Appl. No. 09/816,067
Amdt. sent February 12, 2007
Amendment under 37 CFR 1.116 Expedited Procedure
Examining Group 2693

PATENT
RECEIVED
CENTRAL FAX CENTER

JUN 20 2007

REMARKS/ARGUMENTS

This Amendment is in response to the Office Action mailed May 16, 2006.

Claims 1-12 were pending in the present application. Claims 1, 2, 7, and 12 have been amended. No claims have been canceled. Claims 13-16 have been added. Accordingly, claims 1-16 remain pending in the present application after entry of this Amendment. Reconsideration of the rejected claims is respectfully requested.

35 U.S.C. § 102(e) Rejections of Claims 1-12

Claims 1-12 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,795,445 to Kabie et al. (hereinafter "Kabie"). Claims 1, 2, 7, and 12 have been amended to clarify the distinctions between the claimed embodiments and Kabie. In addition, claims 2, 7, and 12 have been amended to correct minor informalities not related to patentability.

Embodiments of the present invention provide scalable techniques for maintaining a quality of service ("QoS") path through networks. As shown in Fig. 1 of the specification as filed, an illustrative embodiment includes gateway elements 14, a trunk management system ("TMS") 32, a network management system ("NMS") 30, and a core network 16. Core network 16 consists of a number of edge nodes 20, relay nodes 24, and data links (a, b, c, d, e, f) that couple the edge and relay nodes. During a initialization period of the present embodiment, NMS 30 provisions a certain amount of a communication resource (e.g., bandwidth) to each link (a, b, c, d, e, f) in core network 16. NMS 30 also establishes various one-way "routes" between gateway elements 14 using the links. For example, one route between source (i.e., sending) gateway element GB and destination (i.e., receiving) gateway element GD may include the links EB-C2 (e), C2-C1 (c), and C1-ED (b).

In various embodiments, each gateway element stores information about the routes originating from that gateway in a gateway route table (e.g., Figs. 6A and 6B). Each gateway element also stores a listing of the provisioned resources for each link in the routes, and the portions of those resources that are currently used and currently available in a gateway trunk status table (e.g., Fig. 10A). When a request for a data transfer is received at a gateway, the gateway route table is consulted to determine whether a valid route to the desired receiving gateway exists. If a route does exist, the gateway trunk status table is consulted to determine

COPY

Appl. No. 09/816,067
Amdt. sent February 12, 2007
Amendment under 37 CFR 1.116 Expedited Procedure
Examining Group 2693

PATENT

whether there are sufficient available resources at each link along the route to enable transfer of the requested data. In this manner, a minimum quality of service for each data transfer may be achieved.

In accordance with the above, amended claim 1 recites:

A data network for communicating data between a sender unit and a receiver unit, comprising:
a core network including relay elements intercoupled by data links;
a gateway element coupled to the core network and to the sender unit, the receiver unit being coupled to the core network, the gateway element having at least one information table identifying at least one route from the gateway element through the core network to the receiver unit, including data links which constitute the at least one route, allocations of predetermined communication resources of the data links, and status information indicative of an amount of currently used communication resources of the data links and an amount of currently available communication resources of the data links. (Emphasis added)

The above recited features are not shown or disclosed by Kabie. Kabie is directed to a particular model for managing bandwidth in a multiservice network. As best understood, Kabie describes partitioning bandwidth in a network among "transport pools." Each transport pool is associated to a "tunnel" (e.g., route through the network) and one or more QoS applications (e.g., EF (Expedited Forwarding), AF1 and AF2 (Assured Forwarding), BE (Best Effort)), thereby allowing bandwidth to be managed among multiple routes and multiple QoS applications.

However, Kabie makes absolutely no reference to information about an amount of currently used communication resources and an amount of currently available communication resources for a network data link. As a result, Kabie fails to disclose "[a] gateway element having at least one information table...including... status information indicative of an amount of currently used communication resources of the data links and an amount of currently available communication resources of the data links," as recited in claim 1.

For at least the foregoing reasons, claim 1 is asserted to be allowable and the rejection should be withdrawn.

Independent claims 2, 7, and 12 recite limitations that are substantially similar to claim 1. For example, claims 2 and 12 recite "status information indicative of a currently used amount of the allocated communication resources and a currently available amount of the allocated communication resources." Claim 7 recites "status information indicative of currently used data communication capacity of the certain links and currently available data

COPY

RECEIVED
CENTRAL FAX CENTER

Appl. No. 09/816,067
Amtd. sent February 12, 2007
Amendment under 37 CFR 1.116 Expedited Procedure
Examining Group 2693

JUN 20 2007

PATENT

communication capacity of the certain links." Thus, claims 2, 7, and 12 are allowable for substantially the same reasons as claim 1.

Claims 2, 7, and 12 also recite further limitations that are not disclosed by Kabie. For example, claims 2 and 12 recite "checking the status information to grant the request if the currently available amount of the allocated communication resources of the communicative route is equal or greater than the requested communication resource." Claim 7 recites "granting the request if the currently available data communication capacity of the certain data links is at least equal to or greater than the requested capacity." In other words, the claimed embodiments determine whether to grant a data transfer request based on the currently available (i.e., unused) communications resources along a route. Kabie fails to teach or disclose this concept. Thus, claims 2, 7, and 12 are distinguishable over Kabie for at least these additional reasons.

Claims 3-6 depend from claim 2 and are thus allowable for substantially the same reasons as claim 2, as well as for the additional limitations they recite.

Claims 8-11, 15, and 16 depend from claim 7 and are thus allowable for substantially the same reasons as claim 7, as well as for the additional limitations they recite.

Claims 13 and 14 depend from claim 12 and are thus allowable for substantially the same reasons as claim 12, as well as for the additional limitations they recite.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance and an action to that end is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,


George B. F. Yee
Reg. No. 37,478

TOWNSEND and TOWNSEND and CREW LLP
Two Embarcadero Center, Eighth Floor
San Francisco, California 94111-3834
Tel: 650-326-2400 / Fax: 415-576-0300
GBFY:A2L:mjg
60976820 v1

COPY